

REMARKS

Applicant has reviewed and considered the Office Action mailed on March 7, 2007, and the references cited therein.

Claims 1-4, 9-11, and 20-22 are amended, claims 5-8, 12-14, 16, and 23-24 are canceled, and no claims are added; as a result, claims 1-4, 9-11, 15, 17-22, and 25-26 are now pending in this application.

35 USC § 102 Rejection of the Claims

Claims 1-7, 9-13, 15-23, 25 and 26 were rejected under 35 USC § 102(e) as being anticipated by *Crawford et al.* (U.S. Publication 2003/0002471).

Claim 1 is an independent claim directed to a method for use in a multicarrier wireless communication system. More specifically, the method comprises: (a) approximating a sum of symbol error probabilities for each antenna in a group of antennas, said symbol error probabilities being associated with sub-carriers of a multicarrier symbol, wherein approximating includes using a shortest distance between two received signal points for sub-carriers associated with each antenna; and (b) selecting an antenna from the group of antennas for use in subsequent wireless communication based on said approximated sums. Support for amendments to claim 1 can be found at, for example, page 6, line 10 to page 7, line 11 of the specification as filed.

Crawford et al. does not disclose the approximation of a sum of symbol error probabilities for antennas, during an antenna selection procedure, where the approximation includes “using a shortest distance between two received signal points for sub-carriers associated with each antenna.”

Based on the foregoing, it is submitted that claim 1, as amended, is not anticipated by *Crawford et al.* Reconsideration and allowance of claim 1 is therefore respectfully requested.

Claim 9 is an independent claim directed to an apparatus. More specifically, the apparatus comprises: (a) an antenna switch to controllably couple one of a plurality of antennas to a wireless communication circuit; and (b) a switch controller to select an antenna from said plurality of antennas to be coupled to said wireless communication circuit for use in supporting wireless communication, said switch controller to approximate a sum of symbol error probabilities for each antenna in said plurality of antennas, said symbol error probabilities being

associated with sub-carriers of a multicarrier symbol, wherein the approximation uses a shortest distance between two received signal points for sub-carriers associated with each antenna. Support for amendments to claim 9 can be found at, for example, page 6, line 10 to page 7, line 11 of the specification as filed.

Crawford et al. does not disclose a switch controller to approximate a sum of symbol error probabilities for each antenna in a plurality of antennas “wherein the approximation uses a shortest distance between two received signal points for sub-carriers associated with each antenna.”

Based on the foregoing, it is submitted that claim 9, as amended, is not anticipated by Crawford et al. Reconsideration and allowance of claim 9 is therefore respectfully requested. Independent claim 20 is allowable for at least the same reasons as claim 9.

Claims 2-4, claims 10-11, 15, and 17-19, and claims 21-22 and 25-26 are dependent claims that depend, either directly or indirectly, from independent claims 1, 9, and 20, respectively. Consequently, these claims are allowable for at least the same reasons as their corresponding base claims. These claims also provide further bases for patentability. For example, claims 2-4, 10-11, and 21-22 each introduce equations for use in antenna selection that are not disclosed in Crawford et al. Support for these equations can be found at page 6, line 10 to page 7, line 11 of the specification as filed.

Claims 5-7, 12-13, 16, and 23 have been canceled.

35 USC § 103 Rejection of the Claims

Claims 8, 14 and 24 were rejected under 35 USC § 103(a) as being unpatentable over *Crawford et al.* (U.S. Publication 2003/0002471) in view of *Liang et al.* (U.S. Publication 2004/0204105).

Claims 8, 14, and 24 have been canceled without prejudice or disclaimer.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (480-948-3745) to facilitate prosecution of this application.

Respectfully submitted,

QINGHUA LI ET AL.

By their Representatives,

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480-948-3745

Date 5/22/07

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 22 day of May, 2007.

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